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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,549	12/07/2000	William C.Y. Lee	G&C 139.147-US-U1	1752
22462	7590	04/15/2005	EXAMINER	
GATES & COOPER LLP HOWARD HUGHES CENTER 6701 CENTER DRIVE WEST, SUITE 1050 LOS ANGELES, CA 90045			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/733,549	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Shick C Hom	<b>Art Unit</b> 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 17-19 and 22-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 20, 21 and 25-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/7/00 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed 10/28/04 have been fully considered but they are not persuasive. In page 12 lines 1-5 of the response, applicant argued that the spreading codes of Laakso et al. are not the same as the orthogonal code inserted into the frame of claim 1 is not persuasive because Laakso et al. in col. 1 lines 17-39 recite the frame being divided into time slots, each slot being allocated to be used by a certain radio connection, whereby the slots are mutually orthogonal clearly reads on the orthogonal code included in the frame as in claims 1, 8. In page 18 line 36 to page 19 line 2 of the response, applicant argued that Wilson does not teach determining whether a portion of a frame was received in error, and then only re-transmitting that portion of the frame rather than the entire frame is not persuasive because Wilson in col. 17 lines 35-49 which recite error checking and recovery whereby when errors occur only a smaller frame of data are retransmitted to recover from the error without re-transmitting the entire block of data clearly reads on re-transmitting that portion of the frame in error rather than the entire frame whereby the

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block of data in Wilson corresponds to the frame in the application.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 7-9, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by `Laakso et al. (6,456,605).

Regarding claims 1 and 8:

Laakso et al. disclose the method and apparatus for controlling transmit power in a wireless communications system, comprising: (a) determining a bit error rate for an orthogonal code included in a frame transmitted by the wireless communications system; and (b) adjusting transmit power in the wireless communications system based on the determined bit error

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rate (see col. 8 lines 20-49 which recite each frame being divided into slots using orthogonal spreading codes; col. 19 lines 45-64 which recite the method of controlling transmit power by calculating and estimating the bit error rate and frame error rate; and col. 1 lines 17-39 recite the frame being divided into time slots, each slot being allocated to be used by a certain radio connection, whereby the slots are mutually orthogonal clearly reads on the orthogonal code included in the frame).

Regarding claims 2 and 9:

Laakso et al. disclose wherein the determining step further comprises calculating the bit error rate for the orthogonal code and then estimating the bit error rate for the frame based on the calculation (see col. 19 lines 45-64 which recite the method of controlling transmit power by calculating and estimating the bit error rate and frame error rate).

Regarding claims 7 and 14:

Laakso et al. disclose wherein the estimating step comprises extrapolating the bit error rate for the frame from the bit error rate for the orthogonal code (see col. 19 lines 45-64).

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4. Claims 25 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Wilson (6,718,347).

Regarding claims 25 and 29:

Wilson the method and apparatus for re-transmitting frames with errors in a wireless communications system, comprising: (a) determining whether a portion of a frame was received in error during a transmission in the wireless communications system; and (b) invoking a re-transmission of the portion of the frame received in error without invoking a re-transmission of the entire frame in the wireless communications system (see col. 10 lines 27-43 which recite the wireless communication link and col. 17 lines 35-49 which recite error checking and recovery whereby when errors occur only a smaller frame of data are retransmitted to recover from the error without re-transmitting the entire block of data clearly reads on re-transmitting that portion of the frame in error rather than the entire frame whereby the block of data in Wilson corresponds to the frame in the application).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 15-16 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang (6,397,043) in view of Chen (5,960,361).

Regarding claims 15 and 20:

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Kang discloses the method and apparatus for re-transmitting frames with errors in a wireless communications system, comprising: (a) determining whether a frame was received in error during a transmission in the wireless communications system; and (b) increasing transmit power for a re-transmission of the frame received in error in the wireless communications system (see col. 5 lines 43-44, col. 6 lines 41-47, Fig. 6, and col. 6 line 66 to col. 7 line 18 which recite that if the error rate count is higher than a specified level then message is re-transmitted and the transmit power is increased).

Regarding claims 16 and 21:

Kang discloses wherein the increasing step comprises immediately increasing the transmit power in when the frame is received in error (see col. 6 lines 41-47 which recite increasing the transmit power of the frame).

For claims 15-16 and 20-21, Kang discloses all the subject matter of the claimed invention with the exception of means for increasing transmit power being in accordance with the frame's position in accordance with an amount of data transmitted or by steps when one or more starting frames are received in error.

Chen from the same or similar fields of endeavor teach that it is known to provide means for increasing transmit power being in accordance with the frame's position in accordance with an



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amount of data transmitted or by steps when one or more starting frames are received in error (see col. 3 line 48 to col. 4 line 16 which recite the increasing transmit power level and decreasing it in a sawtooth feedback fashion as shown in Figs. 2-3, clearly reads on increasing power by steps when frames are received in error). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide means for increasing transmit power being in accordance with the frame's position in accordance with an amount of data transmitted or by steps when one or more starting frames are received in error as taught by Chen in the method and apparatus of Kang.

The means for increasing transmit power being in accordance with the frame's position in accordance with an amount of data transmitted or by steps when one or more starting frames are received in error can be implemented by connecting the means for increasing transmit power in the sawtooth step fashion of Chen in the means for controlling transmit power of Kang. The motivation for using the means for increasing transmit power in the sawtooth step fashion as taught by Chen in the method and apparatus of Kang being that it provides more efficiency for the system since the system can save power and prevent excessive use of power at the transmitting end.

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8. Claims 26-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (6,718,347) in view of Conrow et al. (5,526,409).

Regarding claims 26-28 and 30-32:

For claims 26, 28, 30, and 32, Wilson discloses the method and apparatus described in paragraph 6 of this office action. Wilson discloses all the subject matter of the claimed invention with the exception of wherein the frame includes an indicator field comprised of a plurality of bits and one of the bits in the indicator field indicates a parity for the portion of the frame received in error as in claims 26, 30 and wherein each bit in a particular position of the indicator field represents the parity for the subset of bits in the same relative position in a data portion of the frame as in claims 28 and 32.

For claims 27 and 31 Wilson discloses wherein the portion comprises a subset of bits in the frame (see col. 17 lines 35-49 which recite portion of the 1 Kbyte frame).

Conrow et al. from the same or similar fields of endeavor teach that it is known to provide the frame including an indicator field comprised of a plurality of bits and one of the bits in the indicator field indicates a parity for the portion of the frame received in error wherein each bit in a particular

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position of the indicator field represents the parity for the subset of bits in the same relative position in a data portion of the frame (see col. 18 lines 7-24 which recite the frame including an indicator field and the parity bit). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the frame including an indicator field comprised of a plurality of bits and one of the bits in the indicator field indicates a parity for the portion of the frame received in error wherein each bit in a particular position of the indicator field represents the parity for the subset of bits in the same relative position in a data portion of the frame as taught by Conrow et al. in the communications method and apparatus of Wilson. The frame including an indicator field comprised of a plurality of bits and one of the bits in the indicator field indicates a parity for the portion of the frame received in error wherein each bit in a particular position of the indicator field represents the parity for the subset of bits in the same relative position in a data portion of the frame can be implemented by providing this frame format of Conrow et al. in the frame format of the method and apparatus of Wilson. The motivation for providing frame format including an indicator field comprised of a plurality of bits and one of the bits in the indicator field indicates a

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parity for the portion of the frame received in error wherein each bit in a particular position of the indicator field represents the parity for the subset of bits in the same relative position in a data portion of the frame as taught by Conrow et al. in the communication method and apparatus of Wilson being that it provides more efficiency for the system since the system can interface, using the Communication System Interface CSI, with known communication systems in a standard format.

9. Claims 3-5 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laakso et al. (6,456,605) in view of Maru (6,385,180).

Regarding claims 3-5 and 10-12:

For claims 3-5 and 10-12, Laakso et al. disclose the system and method described in paragraph 4 of this office action. Laakso et al. disclose all the subject matter of the claimed invention with the exception of wherein the orthogonal code replaces a header in the frame transmitted by the wireless communications system as in claims 3, 10; mapping the header to the orthogonal code using a table, wherein the table associates the headers to the orthogonal codes as in claims 4, 11; and

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wherein the mapping step is performed at call set up as in claims 5, 12.

Maru from the same or similar fields of endeavor teach that it is known to provide the orthogonal code replaces a header in the frame transmitted by the wireless communications system (see col. 3 lines 26-27); mapping the header to the orthogonal code using a table, wherein the table associates the headers to the orthogonal codes (see col. 7 line 62 to col. 8 line 8); wherein the mapping step is performed at call set up (see col. 5 lines 33-48). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the orthogonal code replaces a header in the frame transmitted by the wireless communications system; mapping the header to the orthogonal code using a table, wherein the table associates the headers to the orthogonal codes; wherein the mapping step is performed at call set up as taught by Maru in the communications method and apparatus of Laakso et al. The orthogonal code replacing a header in the frame transmitted by the wireless communications system; mapping the header to the orthogonal code using a table, wherein the table associates the headers to the orthogonal codes; wherein the mapping step is performed at call set up can be implemented by using the orthogonal code in the header including using the mapping table

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at call set up of Maru in the method of Laakso et al. The motivation for having the orthogonal code replacing a header in the frame transmitted by the wireless communications system; mapping the header to the orthogonal code using a table, wherein the table associates the headers to the orthogonal codes; wherein the mapping step is performed at call set up as taught by Maru in the communication method and apparatus of Laakso et al. being that it provides more efficiency for cell search for synchronization in Laakso et al.

#### ***Allowable Subject Matter***

10. Claims 6 and 13 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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12. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

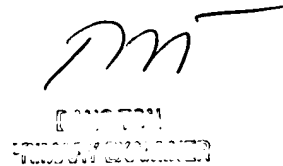
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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